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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GREGORY LUCIUS MEREDITH, AMIT MITAL, ANTHONY
ANDREWS, A. SIVAKUMAR, DONALD McCRADY, PATRICK
HELLAND, and BIMAL MEHTA

Appeal 2009-001709
Application 09/620,771
Technology Center 3600

Decided: November 10, 2009

Before MURRIEL E. CRAWFORD, JOSEPH A. FISCHETTI, and BIBHU
R. MOHANTY, *Administrative Patent Judges*.

MOHANTY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants seek our review under 35 U.S.C. § 134 (2002) of the final rejection of claims 1-40, 42-46, and 48-52 which are all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF THE DECISION

We AFFIRM.

THE INVENTION

The Appellants' claimed invention is directed to a method of executing long running transactions in a computer system (Spec. 4:23-25). Claim 1, reproduced below, is representative of the subject matter of appeal.

1. A method of processing a workflow action within a schedule and having a latency attribute associated therewith, comprising:
 - initiating the workflow action;
 - comparing the latency attribute that is associated with the workflow action with a latency threshold; and
 - selectively storing data associated with a schedule in a storage medium based on the latency comparison.

THE REJECTIONS

The Examiner relies upon the following as evidence in support of the rejections:

Hsu

US 5,581,691

Dec. 3, 1996

The following rejections are before us for review:

1. Claims 1-22, 26, 28-40, 42-44, 46, and 48-52 are rejected under 35 U.S.C. § 102(b) as anticipated by Hsu.
2. Claims 23-25, 27, and 45 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hsu.

THE ISSUE

At issue is whether the Appellants have shown that the Examiner erred in making the aforementioned rejections.

With regards to claims 1-39 this issue turns on whether Hsu discloses: “initiating the workflow action”, “comparing the latency attribute that is associated with the workflow action with a latency threshold”, and “selectively storing data associated with a schedule in a storage medium based on the latency comparison”.

With regards to claims 40, 42-46, and 48-52 this issue turns on whether Hsu discloses “recognizing a transaction boundary associated with a transaction” and “selectively compensating at least a first workflow action according to the transaction boundary and a compensation parameter based on a abortion of a second workflow action”.

FINDINGS OF FACT

We find the following enumerated findings of fact (FF) are supported at least by a preponderance of the evidence:¹

FF1. Hsu has disclosed work flow management system (Title) for a computer system (Fig. 1).

¹ See *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Patent Office).

FF2. Hsu's work flow management system executes and tracks the progress of long running work flows and recovers from system failures during the execution of long running work flows (Col. 2:64-3:1).

FF3. Hsu discloses that the system execution of work flow begins when a corresponding set of externally generated input signals are received by the flow controller (Col. 3:10-13).

FF4. Hsu discloses that a Time Setting 584 is equal to the time at which the step will timeout if execution of the step is not yet complete, and is computed by the T2 process as the starting time for the step plus the Timeout duration step (Col. 13:35-38).

FF5. Hsu discloses that log records are durably stored upon instantiation, execution and termination of each step of a work flow, and output signals are also logged, thereby durably storing sufficient data to recover a work flow with virtually no loss of the work that was accomplished prior to system failure (Col. 3:25-30).

FF6. Hsu discloses that a flow controller 130 is the main engine controlling the work flow and durably storing the results of each step creating log records used for system crash recovery and status monitoring (Col. 5:9-15).

FF7. Hsu discloses that in a typical system that many different flows will be in process at the same time and thus many items will be in queues. As each step works its way through the T1 to T5 loop its records in the previous queue are deleted and new records are created in the next queue along the loop. Log records are generated by each of the processes T1 to T5 to allow recovery of steps interrupted by system failures (Col. 15: 5-14).

PRINCIPLES OF LAW

Principles of Law Relating Claim Construction

We determine the scope of the claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). The properly interpreted claim must then be compared with the prior art.

Principles of Law Relating to Anticipation

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Analysis of whether a claim is patentable over the prior art under 35 U.S.C. § 102 begins with a determination of the scope of the claim.

Principles of Law Relating to Obviousness

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3)

the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 550 U.S. at 407 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”) In *KSR*, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” *id.* at 415-16.

ANALYSIS

Claims 1-39

The Appellants argue that the rejection of claim 1 is improper because Hsu fails to disclose the steps of “initiating a workflow action, comparing a latency attribute with a latency threshold and selectively storing data associated with a schedule in a storage medium based on the latency comparison” (Br. 6). The Appellants argue that Hsu teaches a timeout duration value that indicates a maximum amount of time allotted for executing a step in a workflow, but that this cannot be compared with comparing a latency attribute with a latency threshold as claimed (Br. 6-7). The Appellants also argue that Hsu is silent regarding the limitation for “selectively storing data associated with a schedule in a storage medium based on the latency comparison” (Br. 7, Reply Br. 2-3).

In contrast, the Examiner has determined that Hsu anticipates claim 1 (Ans. 16-19). The Examiner determined that Hsu discloses the “comparing latency attribute” step at col. 13, lines 30-51 for instance (Ans. 17-18). The Examiner has also determined that Hsu discloses the “selectively storing data” step at col. 3:10-25, col. 5:9-15, and col. 15:5-15 (Ans. 18).

We agree with the Examiner. The Appellants first argue that Hsu fails to disclose “initiating a workflow action”, but Hsu discloses that the system execution of work flow begins when a corresponding set of externally generated input signals are received by the flow controller (FF3) meeting this cited limitation. The Appellants further argue that Hsu fails to disclose “comparing the latency attribute...with a latency threshold”. However Hsu discloses that a Time Setting 584 is equal to the time at which the step will timeout if execution of the step is not yet complete, and is computed by the T2 process as the starting time for the step plus the Timeout duration step (FF4). Thus, in Hsu, the time duration step (latency attribute) is compared to Time Setting 584 (a latency threshold) meeting this cited claim requirement in the completed step. Hsu has also disclosed that log records are durably stored upon execution and termination of each step of a work flow (FF5) and that the flow controller 130 stores the results of each step creating log records used for system crash recovery and status monitoring (FF6). Since log records are created for each completed step, data would be stored in a storage medium after the comparison with the Time setting 584 (a latency threshold). The term “selectively” as recited in the claims does not exclude the storing of all data after a processing step has been completed. As Hsu has disclosed these cited and argued claim limitations the rejection of claim 1 is sustained. The Appellants has not provided separate arguments for claims 2-39 and the rejection of these claims is sustained for the same reasons given above.

Claims 40, 42-46, and 48-52

The Appellants argue that the rejection of claim 40 is improper because Hsu fails to disclose the steps of “recognizing a transaction boundary associated with a transaction” and “selectively compensating at least a first workflow action according to the transaction boundary and a compensation parameter based on an abortion of a second workflow action” (Br. 7, Reply Br. 3-4). The “transaction boundary” recited in claims 40 can be equated Time Setting 584 in the Hsu reference and addressed above since the time limit would serve as a “transaction boundary” for completing the step. Hsu has disclosed that log records are durably stored for termination of each step of a work flow thereby durably storing sufficient data to recover a work flow with virtually no loss of the work that was accomplished prior to system failure (FF5). As such, Hsu selectively compensates (recovers workflow) for a workflow action (first workflow action) based on the time setting (a transaction boundary) and a compensation parameter (which would initiate the recovery) based on abortion of a second workflow action (the action which was terminated). The term “selectively” as recited in the claim does not exclude the storing of all data after a processing step has been completed. For these reasons the rejection of claim 40, and dependent claims 42-45 which have not been argued separately, is sustained.

With regards to claims 51 and 52 “determining the state of the transaction” would be determined in Hsu if the step was terminated before recovery of the workflow step (FF5). The Appellants have provided essentially the same arguments for claims 51 and 52 and the rejection of these claims, as well as dependent claims 42-46, and 48-50 which the Appellants have not argued separately, is sustained for these same reasons.

CONCLUSIONS OF LAW

We conclude that Appellants have not shown that the Examiner erred in rejecting claims 1-22, 26, 28-40, 42-44, 46, and 48-52 under 35 U.S.C. § 102(b) as anticipated by Hsu.

We conclude that Appellants have not shown that the Examiner erred in rejecting claims 23-25, 27, and 45 under 35 U.S.C. § 103(a) as unpatentable over Hsu.

DECISION

The Examiner's rejection of claims 1-40, 42-46, and 48-52 is sustained.

AFFIRMED

MP

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